

REMARKS/ARGUMENTS

Claims 1-57 are currently pending in the application. The examiner has entered a restriction requirement restricting prosecution in this application between claims 1-13 and claims 14-44, and has examined claims 1-13. The examiner has not indicated the status of claims 45-57 and thus these claims are viewed to be currently pending in the application but as yet unexamined. Thus, claims 1-13 and claims 45-57 are currently at issue in the application. No amendments have been made by this response.

RESPONSE TO RESTRICTION REQUIREMENT

The examiner has entered a restriction requirement identifying two groups of claims drawn to what the examiner has characterized as separate inventions, namely invention I (claims 1-13) and invention II (claims 14-44). The examiner has indicated that the inventions of these two sets of claims are related as combination claims and sub-combination claims. Applicants note that the examiner has not indicated any manner in which claims 45-57 are to be treated with respect to the restriction requirement and has not provided any basis for restricting these claims from prosecution in this application. As a result, applicants submit the claims 45-57 are pending and under consideration, regardless of the election made in response to the restriction requirement. Applicants therefore respectfully request examination of these claims on the merits in the next office action, which must be a non-final action, as the examiner has not previously considered these claims or made any rejections thereof.

In any event, applicants respectfully traverse the restriction requirement on the grounds provided below. However, applicants provisionally elect claims 1-13 for prosecution in this application (in addition to the pending and non-restricted claims 45-57).

Applicants specifically traverse the restriction requirement with respect to what the examiner has identified as inventions I and II, which the examiner notes are related as combination and sub-combination claims. Unfortunately, the examiner has mischaracterized which set of claims is directed to the combination and which set of claims is directed to the sub-combination and, as a result, the examiner's basis for entering the restriction is submitted to be faulty. The combination claims (to the extent that any set of claims is properly identified as combination claims) are actually what the examiner has identified as invention II (claims 14-44) as they recite a combination of a process control system having a controller or a processor and a memory having various elements including, generally speaking, elements of the sub-combination recited by claims 1-13. To the extent that any of the claims are sub-combination claims (which is not admitted) claims 1-13 should be characterized as the sub-combination claims, as claims 1-13 recite elements which generally form a sub-combination of the entire combination of elements recited by claims 14-44. Thus, the examiner's reasoning that invention I (claims 1-13) does not need the controller of invention II (claims 14-44) for patentability, while true, does not provide a proper basis that these sets of claims should be restricted from one another. Instead, the examiner must show that the combination claims (claims 14-44) do not rely on or need the invention of the sub-combination claims (claims 1-13), which the examiner has not done. Otherwise, in every case, the Office could introduce a restriction requirement simply by mischaracterizing which invention is the sub-combination and which is the combination, as it is always the case that the sub-combination claims will not require the additional elements of the combination claims to be patentable. (Note, the applicants are not admitting that each of the elements of claims 1-13 are found in each of claims 14-44. Instead, claims 14-44 should only be limited by the elements expressly recited therein).

If the examiner properly identifies invention I (claims 1-13) as the sub-combination claims and the invention II (claims 14-44) as the combination claims, then the combination claims do, in fact, require the general concept of the sub-combination claims 1-13 for patentability, meaning that entry of a restriction requirement is improper in this case (MPEP § 806.05(c)). As a result, applicants respectfully request the examiner to withdraw the restriction requirement and to examine all of claims 1-44 (in addition to non-restricted claims 45-57) in the next action.

RESPONSE TO CLAIM REJECTIONS UNDER 35 U.S.C. § 102

Applicants respectfully traverse the rejection of claims 1-4 and 9 as anticipated by Havekost et al. While not specifically identified by patent number in the Office Action, based on the context of the description of Havekost et al. provided by the examiner, the applicants assume that the examiner is applying U.S. Patent No. 5,768,119 issued to Havekost et al. If this is not the case, the examiner is respectfully requested to contact the applicants' attorney at the soonest possible time to more clearly define the art being applied in this case.

Applicants note that each of claims 1-4 and 9 is directed to a function block entity having a function block stored in a computer readable memory with an input adapted to receive an input signal from within the process control environment indicating a configuration state of a field device within a process control environment, a detection unit coupled to the input that detects when the field device is in non-normal operating configuration state and inhibit logic that automatically produces an inhibit signal when the field device is in a non-normal operating configuration state, to thereby inhibit the use of a further signal from the field device. Thus, the function block entity recited by these claims

detects when a field device is operating in a non-normal operating configuration state and inhibits the use of one or more signals from the field device by, for example, a safety controller, when the field device is in a non-normal operating configuration state.

The use of such inhibit logic within a function block assures, in one example, that a signal output by a field device that is currently in a non-normal operating configuration state does not cause a shutdown of the process control system, based on logic within a safety controller monitoring the field device signal. Generally speaking, when a field device is in a normal operating configuration state, and its output reaches a certain value or goes outside of a certain range, a safety controller associated with the process plant will shut the process plant down for safety reasons. However, if the field device is in a non-normal operating configuration state and therefore is intentionally not operating normally within the process plant, operation of the safety controller based on the field device signal may shut the process down needlessly because the output of the field device no longer reflects the operating condition of the plant or the need to shut the plant down. Such an unnecessary shutdown can be costly in terms of lost product as well as lost production time. The inhibit logic of the claimed invention prevents, for example, a safety system controller from operating to shut down a process plant based on a signal from a field device that is within a non-normal operating configuration state.

Havekost et al. simply fails to disclose or suggest a system that detects or uses the configuration state of a field device, much less one that inhibits the use of a signal from a field device based on the determined configuration state of the field device, as recited by each of claims 1-13. Generally speaking, Havekost et al. discloses a distributed process control system that uses function blocks to perform process control activities within a process plant. While the process control system of Havekost et al. receives alarm signals from field devices

and other entities within the process control system and displays these alarms signals in a prioritized manner on a display device, Havekost et al. does not disclose or suggest detecting or using a configuration state of any of the field devices for any reason, much less to specifically inhibit the use of one or more other signals from those field devices.

Applicants respectfully disagree with the examiner's contention that the cited portions of Havekost et al. disclose the elements he suggests. First of all, the alarms generated in Havekost et al., while indicating some abnormal or potentially dangerous condition within the plant, do not necessarily indicate or reflect a configuration state of a field device. In fact, a field device may be in a non-normal operating configuration state (such as in a simulate configuration state or a manual input configuration state) and not be generating an alarm, or may be in a normal operating configuration state and may be generating an alarm. Thus, the existence of an alarm (as disclosed at column 3, lines 40-54) is not strictly correlated with a configuration state of a field device, and is therefore not a disclosure of determining or providing a configuration state of a field device.

Additionally, column 17, lines 24-35 of Havekost et al. does not disclose or suggest the use of a detection unit that detects when at least one field device is in a non-normal operating configuration state. Instead, this section of Havekost et al. simply states that communication links may be established between different devices, and that the system detects communication link failures, controls switching from one communication link to another and tracks the status of communication links between host devices and remote devices. This disclosure in no way indicates that the signals being sent over the communication links are indicative of a configuration state of a field device. In fact, at most, this section generally discloses that the communication links are being monitored, not that the field devices are being monitored.

Likewise column 22, lines 46-52; column 23, lines 49-66; and column 41, lines 7-20 of the Havekost et al. specification fail to disclose that inhibit logic can or should be used to produce an inhibit signal when one of the field devices is in a non-normal operating configuration state. Column 22 lines, 46-52 simply states that a user defines a control strategy using function blocks. It is not understood how such a general statement could possibly disclose the use of an inhibit signal based on the detection of a field device being in a non-normal operating configuration state. Likewise, column 23, lines 49-66 merely describes how control modules can allow access to attributes stored therein or associated therewith, while column 41, lines 7-20 indicates that alarms are supported for device attributes, wherein such alarms provide access to information about the operation of the control system and are accessible via diagnostics tools. None of this general disclosure indicates or suggests that control logic is based on or provides an indication that a field device is a non-normal operating configuration state, much less that it is desirable or possible to produce an inhibit signal to prevent the use of a signal from a field device based on the determined configuration state of the field device. Finally, while it is true that control modules have the ability to affect a process environment, this does not mean that Havekost et al. necessarily discloses inhibiting signals received from a field device based on a configuration state of a field device.

Thus, for the reasons stated above, Havekost fails to disclose, nor has the examiner shown how Havekost teaches, determining or using a configuration state of a field device to produce an inhibit signal which inhibits the use of a signal from that field device. As a result, Havekost et al. cannot anticipate any of claims 1-4 or 9.

Still further, it is clear that the prior art must provide a suggestion of or a motivation for making the claimed combination to establish a *prima facie* case of obviousness. *In re*

Vaeck, 20 USPQ2d 1438 (Fed. Cir. 1991); *see also* M.P.E.P. § 2143 (8th ed. Rev. May, 2004). It is “incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference.” *Ex parte Levy*, 17 USPQ2d 1461, 1462 (Bd. Pat. App. & Inter. 1990) (citing *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick*, 221 USPQ 481, 485 (Fed. Cir. 1984)). As noted above, none of the cited art discloses or suggests determining a configuration state of a field device, much less using such a configuration state to inhibit the use of a signal from the field device. As a result, Havekost et al., either alone or in combination with the other art of record, cannot render any of claims 1-4 or 9 obvious.

For these reasons, applicants respectfully request that the rejection of claims 1-4 and 9 be withdrawn and that these claims be allowed. Applicants submit that claims 45-57 are allowable over Havekost et al. for similar reasons.

CONCLUSION

For the foregoing reasons, applicants respectfully request reconsideration and withdrawal of the rejections and allowance of claims 1-13 and 45-57. If there are matters that can be discussed by telephone to further the prosecution of this application, applicants respectfully request that the examiner call its attorney at the number listed below.

This response is timely filed as it is submitted to the Patent Office on August 8, 2005 (which is the first business day after August 7, 2005) using a certificate of mailing and is accompanied by a petition for a one-month extension of time along with an authorization to charge the requisite fee therefore to the deposit account of the undersigned attorney, thereby extending the response period to August 8, 2005. However, if any additional petitions or fees are required, please consider this paper as such a petition and please charge any additional fees which are required for consideration of this response to Deposit Account. No. 13-2855. A copy of this paper is enclosed herewith.

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Respectfully submitted,

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